Claims

1. Process for the production of nitric acid with a concentration of 50 to 76 % from ammonia and oxygen-bearing gas under pressure, using the mono or dual pressure process, characterised in that
   - the expansion of the tail gas takes place in at least two steps, thereby converting the gas to energy,
   - the said configuration provides for a device arranged between each pair of expansion units and intended for heating the expanded tail gas to a temperature of >450°C, the said system exploiting the waste heat from the nitric acid production process.

2. Process according to claim No. 1,
   characterised in that the invention provides for a gas inlet temperature of 500 to 600°C, preferably 535°C for the expansion steps, thereby supplying drive energy to further consumers.

3. Process according to one of the preceding claims,
   characterised in that it is intended to use the surplus drive energy for a generator in order to produce electric power.

4. Process according to claim 3,
   characterised in that a motor-generator set is used as the output of said machine is sufficient to ensure the compression drive at the plant startup.